



## DECLARATION

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AUG 21 2000  
TC 3600 MAIL ROOM

I declare that,

there is no subject matter I have added in the substitute specification that was not disclosed in the original application.

Vigo, August 02, 2000

Juan José Gavela Vazquez

A handwritten signature in cursive script, appearing to read "Juan Gavela".



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TC 3600 MAIL ROOM  
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Sub Epec  
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(NE)

NAME

Juan José Gavela Vazquez

CITIZENSHIP

Spanish

5 RESIDENCE

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Spain.

10 TITLE OF INVENTION

Drawer sommier.

## CROSS-REFERENCE TO RELATED APPLICATIONS

15	U9900183	01/18/1999	Spain same application
	U9900183	12/09/1999	Spain patent granted
	99500234.2	12/09/1999	EPO same application

20 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH  
OR DEVELOPMENT

Not applicable.

25 REFERENCE TO A MICROFICHE APPENDIX

Not applicable.

30 BACKGROUND OF THE INVENTION

## Field of Invention

35 This invention relates to traditional cabinetwork frames fully assembled and glued with the mortise-and-tenon joint method supporting bed springs. However, it improves its functions eliminating the bed spring and giving rigidity and an air chamber for the mattress, corners of the bed that can be rounded and having the possibility to be used with bed legs, bed pedestals, wheels or be fixed to bed backs.

40 Description of the Prior Art

The former technique refers to the traditional cabinetwork frames, either assembled or not, supporting bed springs, which support mattresses. Nowadays wooden pieces, yielding with the weight, are fixed to a framework usually

made of iron. Then iron bars are used just underneath the wooden lattice to keep it rigid.

Lately synthetic materials are used with the same structure whose only aim is to hold the mattress.

5 A Day bed does not have a wooden lattice, its framework is usually covered with cloth and its base is near the floor. Recently an iron framework covered with cloth in the shape of a box to hold the bed spring is being used.

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## SUMMARY OF THE INVENTION

Complete compact structure composed of an external wooden framework (1) assembled to corner pieces (6)  
15 and an enclosed bottom (4). Its inside consists of a wooden lattice (2) of detachable (9) or fixed pieces resting upon wooden crossbars (3) which are assembled on opposite sides of the framework.

20 The inside cavity between the enclosed bottom and the wooden lattice provides an air chamber (5) when the mattress is placed.

The air chamber provides insulation. Because of the inner wooden crossbars it provides rigidity for the wooden lattice without making use of the iron bars.

25 Opposite pieces of the framework are alike, as are the corner pieces, the wooden crossbars and the pieces of the wooden lattice, making a uniform set.

The object of the invention is to give people a more convenient set to rest and sleep in accord with wood  
30 craftsmanship.

## DESCRIPTION OF THE DRAWING

35 Fig. no. 1: Perspective view of the Drawer sommier made of rounded corners with detachable wooden pieces for embedded mattress.

40 Fig. no. 2: Perspective view of: (a) rectangular Drawer sommier for embedded mattress and detachable wooden pieces; (b) rectangular Drawer sommier for mattress on the surface with fixed wooden lattice.

Fig. no. 3: (a) perspective view of the Drawer sommier

with bed legs for embedded mattress and detail of detachable wooden pieces; (b) perspective view of the Drawer sommier with bed legs for embedded mattress and detail of detachable wooden lattice.

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Fig. no. 4: Cross section of the Drawer sommier for embedded mattress; (a) detachable wooden pieces; (b) fixed wooden lattice; (c) detachable wooden lattice.

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Fig. no. 5: Cross section of the Drawer sommier for mattress on the surface; (d) fixed wooden lattice; (e) detachable wooden lattice.

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Fig. no. 6: (a) Type of Drawer sommier; (b) side view; (c) usage; (d) side view of the wooden lattice and detachable wooden piece (9); (e) side view of the wooden lattice and added detachable wooden piece (7).

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Fig. no. 7: Cross section of anchorage device; (left side, back of the bed; right side, Drawer sommier).

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Fig. no. 8: Method of assembly: (a) corner piece for embedded framework; (b) embedding; (c) cross sectional embedding.

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### DESCRIPTION OF THE INVENTION

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The Drawer sommier is something more than a mere support for the mattress. It has evolved from a plane form without volume (like a metal bed spring or a combination of wooden pieces and an iron framework) into another form with volume in which exists an inside cavity with an enclosed bottom (4) and some longitudinal stabilizing wooden crossbars (3) which subdivide the cavity into two or more air chambers (5) according to the width required. Small holes made at the bottom of the cavity ensure the transpiration of the body. The assembly of the several parts which compose the Drawersommier is made according to the technique used in cabinetwork.

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The variability of the several measurements for its manufacture is a characteristic of the Drawer sommier according

to the demand of the market. These can be made so small that they can be adapted to a cradle.

Different versions of the invention:

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- a) Rectangular form to be fixed to a front and back of the bed;
- b) Rounded corners to be used with bed legs or bed pedestals;

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1. Mattress on the surface.

- 1.1 Detachable wooden lattice.
- 1.2 Fixed wooden lattice.

2. Embedded mattress.

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- 2.1 Detachable wooden lattice.
- 2.2 Fixed wooden lattice.
- 2.3 Detachable wooden pieces embedded in the framework.

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The rigidity of the ensemble provides a straight position without curves for the human body when resting due to the stabilizing wooden crossbars which keep the wooden lattice (2) or the wooden pieces (9) rigid. Iron is a conductor of electricity, electromagnetic and sound waves as well as a thermal conductor and goes against the principal characteristic of the invention, which is insulation. However, wood is insulating.

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The versatility of the Drawer sommier allows the user, if desired, to replace some of the detachable wooden pieces with other thicker ones (7) in order to raise some part of the body to obtain the optimum position.

The comfort added to the body by its air chamber makes the purchase of a special mattress unnecessary, thus reducing the cost of the ensemble.

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The wooden framework (1) is the essential part of its aesthetic structure. Its assembly will be made by fitting the parts of the framework together and the inlaid corner pieces (6) will be glued and fixed in place, which cannot then be dismantled. However, they can also be put together with a reinforcement angle of wood or metal which can be dismantled.

The wooden crossbars (3) hold the weight and are assembled on the framework and fixed to it by an

inside reinforcement angle of wood or metal.

The wooden lattice (2) is made of detachable wooden pieces (9) which rest upon the wooden crossbars. Its relative length and its thickness allow these to be curved slightly upwards, being introduced in side holes of the frame. These are fixed downwards forming the rigid support for the mattress.

The bottom (4) is made of wood and it is fixed to the framework glued and/or screwed, which would strengthen the bed.

Although the Drawer sommier is a cabinetwork it can be also manufactured using standard techniques due to its uniform pieces. It would become an essential tool for the industrial woodwork manufacturers as well as for the craftsmen involved in bed manufacture because it would save time and work, reducing the costs (see the Different versions of the invention and Exemple for industrial usage, fig. no. 9). It can be fitted to bedbacks through the anchorage device (8), which cannot be seen from the outside.